

Explanatory heterogeneity in European turnout forecasting (1979-2009)

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Abstract

Electoral turnout has been seen as a key indicator in first-order elections, not least in the ability of parties to ‘get their vote out’ but also as a measure of engagement between mass public and polity. For second-order elections, and particularly European elections, the engagement criterion is the one of greater importance: the traditionally low turnout is often regarded as the manifestation of widespread voter indifference, dissatisfaction with the EU institutions and in fine the democratic deficit of the Union. Existing comparative explanatory models at the European level posit a range of structural, demographic and attitudinal predictors which account for a substantial proportion of variance in turnout, but consequently ascribe a homogeneous set of predictors to account for the variation in engagement. Forecasting models, however, face the dual challenge of minimising error in turnout prediction, as well as providing a robust theory-grounded explanatory rationale for the necessarily parsimonious choice of variables. Building on regression models from aggregate data, this paper looks at the applicability of such an approach to exploring the Euro-vote comparatively. It considers whether a single model is best suited to forecasting across all 27 member states, or whether a differentiation as to ‘what matters’ to different areas of Europe in these elections corresponds with superior forecasts.

Introduction

Whilst forecasting models of electoral outcomes have long been a staple of the psephological literature, forecasts of abstention have been less prevalent. Interest naturally lies principally with predicting the winners of any electoral race and, if possible, in accurately estimating their actual vote share. Forecasting the “loser’s” vote share is an additional aim which proportional systems demand, unlike straight government / opposition dyads, requiring increasingly sophisticated models to map robustly the relative vote shares for multiple players. Forecasting turnout appears a somewhat esoteric aim, not least because these votes do not ostensibly count.

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Turnout is, however, a key outcome of any election race and deserves study as a forecast. Firstly, turnout determines election results – it decidedly does count. The ability of a party or candidate to ‘get out the vote’ has long been regarded as a key electoral indicator, as well as a self-evidently concrete campaign objective. Spatial models which predicate themselves exclusively on ideological proximity to a majority, absolute or relative, of the electorate do not necessarily factor in the proportion of this majority who will turn out.

Secondly, turnout is increasingly a democratic KPI in its own right. Early studies of abstention (Gosnell, 1930, Tinsten, 1937) may have seen high turnout as evidence of ideological extremism, social conflict and unstable democracy. However, in contemporary democracies, declining turnout has been seen as evidence of an increasingly apathetic and disconnected electorate, leading to a decline in the quality and effectiveness of political representation. Whether or not this normative analysis of changing turnout is accurate, the indicator does empirically show decreasing levels of participation at the ballot-box.

No election is more scrutinised for its turnout levels than the European elections. As an electoral chain which now covers 27 countries, with a diverse set of party families and coalitions contesting each of these, and with no executive outcome resulting from the assembly make-up, turnout in Euro-elections has come to be seen as a thermometer of public mood towards the EU – and the outlook is decidedly chilly. Monotonic decrease in European turnout since 1979 has variously been seen as a symptom of disenchantment with the EU, disconnection between an obscure elite institution and mass publics, and evidence of the European Parliament’s lack of policy teeth, despite claims to the contrary by the Parliament and its commentators.

But this pessimistic view of turnout in European elections may be excessively negative (Schmitt and van der Eijk, 2008), or more precisely place too much responsibility for rising abstention in the Parliament and EU themselves. Without first identifying the causes of abstention, and in particular structural components to this, it is impossible to identify with any certainty the extent of disenchantment with Europe per se which is at the root. Secondly, with 27 countries in play, can we assume that there is a single explanation or set of explanations which applies equally – or even

with differing salience – across all cases? The overall monotonic downward trend in participation conceals a significant amount of variance across time and space, as well as within individual member states. Lastly, whilst comparative explanations of turnout do tend to focus on a single-equation model positing a range of explanatory variables which account for some variance in turnout levels, how powerful and stable are such explanations in terms of predictive efficacy? This paper represents a first attempt to identify the degree to which a small number of parsimonious forecast models can be identified in the absence of an effective single cross-European model.

Causes of abstention

The explanatory literature on turnout is well known and quickly reviewed. Two principal groups of variables are normally used to explain abstention – structural causes and demographic correlates. The former relate principally to characteristics of the political system in question (Jackman, 1987; Blais and Carty, 1990; Blais and Dobrzynska, 1998; Geys, 2006). Compulsory voting and day of the week when voting takes place are the bluntest but most necessary of instruments, with compulsory weekend voting providing the highest levels of turnout. Additional institutional factors, such as variously the electoral system, district magnitude, party system (in terms of competitive dynamics) and regime type all see varying effects on turnout across time and country. However, the European institutional setting itself plays a role, identified from the very start as being a second-order election, and therefore both less mobilising for mass publics and equally prey to different explanatory emphasis than national elections (Reif and Schmitt, 1980; van der Eijk, Franklin and Marsh, 1996; Hix and Marsh, 2008).

The second set of indicators may be described as demographic correlates. A number of social characteristics are associated with lower levels of turnout, but the exact mechanism is less clear-cut, whence our use of the word ‘correlates’. Age is generally seen as being positively related with turnout (Blais, 2000: 53), with younger voters seen as less committed to or integrated into the social system and therefore less likely to participate in its political process. From a similar perspective, marital status too affects turnout – married couples have a greater ‘stake’ in society, are

more likely to be affected by policy, and therefore have a greater propensity to vote.¹ More specifically, studies as early as *The American Voter* hypothesised that reluctant voters might be mobilised by a spouse (Campbell et al, 1960: 109). More broadly, other social characteristics which might place an individual in a socially disenfranchised position – SEE or income group, for instance – may deter turnout (Rosenstone and Hansen, 1993). Conversely, high degrees of contentment and social inclusion may for a significant minority lead to electoral apathy (Doppelt and Shearer, 2000). Generally, though, higher levels of education, as the key proxy to social insertion and political efficacy, correlate strongly with voting (Blais, 2000).

Beyond the institutional structural indicators, a range of other macro- and meso-level measures present themselves. Some of these are ‘classics’ of the VP-function literature, and therefore perhaps ripe for inclusion in a forecast model. Economic adversity has been linked to depressed participation (Rosenstone, 1982). GDP, unemployment and inflation have all been posited as possible explanatory variables for support (or otherwise) for the EU, and it therefore seems reasonable to include them as potential predictors of turnout. More specific economic variables, such as size of national contribution (or receipt) from the EU also show a clear theoretical link to turnout. What is less clear is the direction of effect – should an increase in, say, unemployment lead to greater or lesser turnout at European elections?² Even more specifically, some work has derived macro-level indicators to examine, for instance, the proportion of the national workforce employed in the agricultural sector, hypothesising that the higher the number, the greater the turnout for Euro-elections, given the support for the EU and its Common Agricultural Policy in its previous incarnation (Studlar, Flickinger and Bennett, 2003).

In addition to direct demographics, the Euroscepticism literature also notes the importance of demographic proxies for attitudinal positions for / against the European Union, and thus potentially relevant to turnout. For instance, religious identity and religious practice both link, in non-conformist country cases, to specific rejection of a

¹ This logic would seem likely to pertain with regard to parental status, but we are unaware of any study looking at number of children and turnout.

² Such a lack of directional clarity with regard to voting is not restricted to Euro-elections, of course : the Extreme Right voting literature is littered with the wrecks of models hypothesising positive and negative relationships between ERP support and unemployment.

perceived Catholic European agenda.³ Equally, class-based accounts of support for Europe variously base opposition on working-class antipathy to its liberal agenda, and growing middle-class apathy to the social agenda. Which pertains when and with what weight, however, is still unclear. Perhaps the most convincing attitudinal account of positions on Europe comes from Marks and Wilson's notion of a prism, by which standard ideology, from wherever it derives, allows for interpretation of European issues (Marks and Wilson, 2000).

Attitudinal predictors thus constitute a step too far in complicating a picture which by forecasting necessity needs to remain simple. We shall leave these variables to one side, with the exception of a basic expression of support or rejection of the EU, to which we turn later. In line with the goal of simplicity, one objective of this paper is to try to provide a structural baseline which provides as accurate a prediction as possible of European election abstention as well as providing a useful explanatory root model upon which to build social and attitudinal models of abstention at the European level. As we noted earlier, some attitudinal models of abstention are essentially self-fulfilling prophecies. It is unhelpful, for example, simply to note that there is a high degree of association between political dissatisfaction and abstention. The causal mechanism between the two is unclear, and is as likely to rest upon a spurious correlation as any useful explanatory relationship. Equally, we accept that structural models can only go so far. Inevitably, there will be a degree of unexplained variance which requires going beyond the institutional framework to domestic context which may or may not include levels of dissatisfaction as a possible explanatory factor. However, we do not wish to resort to this until variables earlier in the causal chain have been tested.

Explanatory model for forecasting turnout: a first derivation

From this literature, then, a large number of possible models presents themselves, and in terms of deriving a first forecast model, no single model recommends itself more than others. We would already ask at this stage, Is a single model effectively forecasting European abstention possible? *A priori*, we would not necessarily have

³ This is most notable in the Norwegian case, to the (partial) extent that Norway is not a member of the EU.

grounds for rejecting this immediately. The explanatory turnout literature is remarkably optimistic in its own approach. The most widely cited works use West European countries across time to test the individual and aggregate models mentioned above. Few include CEE countries, no doubt in many cases due to the lack of cases, but also due to the sense that CEE countries are somehow 'different'. That is not to say that abstention in CEE countries has not been studied – for example, Fauvelle-Aymar and Stegmaier have precisely looked at differences in turnout across CEE countries, using common predictors such as unemployment and the electoral cycle (Fauvelle-Aymar and Stegmaier, 2008). In the general comparative literature, then, all manner of combinations of the above variables are included, and are found to be significant in providing evidence of explanatory power. The models, generally, enjoy less than inspiring R^2 and relatively large error terms, however. Whilst our quest is not for the perfect R^2 , equally there is no getting around the need for a low model error, and within that as few outliers as possible – without these, the forecast venture is sunk.

We therefore choose a rich baseline model, including structural and institutional indicators, period controls and one attitudinal indicator. We do not include any demographic controls, because of the difficulty associated with identifying useful comparable indicators for all nations. Moreover, meaningful lead time is largely absent. The explanatory variables we have chosen are more or less fixed, to the extent that most if not all of them are known well in advance – years, in some cases – of any European election.⁴ A number of the predictors are self-evident. Compulsory voting systems are clearly destined to predict higher levels of turnout than voluntary systems. Two of the EU members have sanctioned mandatory voting – Belgium and Luxembourg. The extent of prescription varies – in Belgium and Luxembourg, for instance, fines can be imposed for abstention, unless a legitimate reason is provided for not voting, but in Belgium recidivist abstainers can be potentially be permanently disenfranchised, as well as experiencing problems within the *verzuilt* public sector. We classify three other systems as compulsory, although no such legal status exists. Greece ceased implementing mandatory voting in 2000.

⁴ A full appendix of the sources of all these data are available from the authors. Generally, socio-economic indicators are taken from Eurostat and OECD data, and political variables are taken from the IDEA website. All attitudinal data are taken from the Eurbarometer survey series.

Similarly, in Italy, mandatory voting was abandoned in 1993, with only limited and relatively informal sanction applied before then. We therefore code Italy as mandatory for all elections up to and including 1994, where, with less than a year's gap, we expect the previous mandatory rule still to maintain its effect. Malta provides a difficult case. Voting in Malta is not mandatory in any legal sense. However, the island has famously high turnout, which is variously explained by the combination of two-party system and proportional representation (Franklin, 2004) the size of the island and political patronage. We nevertheless code Malta as non-compulsory.

As second-order elections, European turnout is affected directly by the status of other elections at the country level. We tap this with two variables. Firstly, we hypothesise that the likelihood of turnout – in fact, in any election, not just European – is conditioned by the proximity of the previous national election. A very short space of time will result in much lower turnout with a diminishing effect as time elapses. In order to reflect the diminishing lagged effect, we use the log of days since the last first-order election. However, should another election be held simultaneously with the Euro-vote, turnout is likely to rise, given the saliency of ballot day across multiple votes, whether first-order national or indeed local elections (cf Rallings and Thrasher, 2005). We initially controlled for this with two variables, reflecting simultaneous first-order and second-order (i.e. local) elections, expecting a greater premium on first-order elections. However, in the full model, the parameter estimate across the two election orders was essentially the same, and so to save degrees of freedom, we simply include a single 'other simultaneous election' variable.⁵

Other specific elements to the Euro-vote are also likely to influence turnout. Firstly, some countries – the UK and Eire, in particular – hold the elections on a Thursday, rather than a Sunday. We control for this, expecting lower levels of turnout on a work-day. We also control for the first European election in each nation, expecting saliency through novelty to encourage higher levels of turnout than subsequent elections.

⁵ In no case was there a European election where both an additional first-order and an additional second-order election were held, thereby obviating any need for an interaction term. The model including the two election-order variables is available from the authors on request.

The one variable which has potentially lower lead-time is turnout at the previous national election. Whilst a model predicated entirely upon structural indicators is an aspirant ideal, it is clear that national contexts will differ in terms of turnout beyond what simple institutional and election law structure suggest. We therefore include a lagged score for turnout at previous national election, in order to pick up national contextual specifics by year. Lastly, we include an indicator of the effective number of parties at the previous national election, as a proxy for party system and the political competitive element. We might equally have included a measure of electoral system type or district magnitude.

Interaction effects nuance the explanatory approach of the model by hypothesising heterogeneity in attitudinal effect for Eastern and Western countries. Indeed, given the lesser number of elections held in these countries to date, the main Eastern control itself would be expected to pick up differences. We also want to look at a possible differential effect on those countries (of whatever region) entering after the Amsterdam Treaty. We wish to reflect changes in the composition of the European Union which may impact upon turnout. Waves of membership would be a potential control, although it is unclear how earlier membership changes in particular would necessarily affect turnout across member states. It is important to take into account the nature of the European Union, and its changing status as a supranational political entity. We therefore control for pre- and post-Amsterdam Treaty, expecting turnout post-Amsterdam to drop. Lastly, we include an attitudinal indicator to tap additional effect through public opinion, namely the Eurobarometer item 'Membership of the EU is bad'. We include the percentage of the population who agree with this statement in the Eurobarometer carried out six months prior to the election.

Table 1 Explanatory model of European turnout

Table 1 demonstrates the problem of attempting to use a single 'naïve' model predicated upon variables derived from the explanatory literature to forecast turnout homogeneously. The model includes ten main effects and two first-order interactions drawn from the turnout and broader comparative politics literature. Hardly parsimonious, given the relatively small sample size, the specification is nevertheless comparable in size to many existing models. The variables are intuitive and

'intelligent'. Many of the expected structural indicators, including compulsory voting, and shocks such as first European election are included.

Figure 1 Polling error in forecasting turnout (Eurobarometer polls at t-6 and t-4)

In explanatory terms, the model performs well. All parameters are significant at the 95% level; the model R^2 surpasses .90; and the parameters are all in the expected direction. In comparison with polling predictions taken from the Eurobarometer surveys at similar lead times (Figure 1), the forecasts are better. Yet, when we test the model more stringently in terms of its out-of-sample forecast potential, and then comparing it with the random walk model, its forecast potential is much less impressive.

Table 2 MAE summary by year and country

Table 2 summaries the mean absolute error for each country by election. A substantial proportion of predicted cases fall within 5% of the observed value, which is strong. Unfortunately, one-third have error in excess of 5%, and almost a tenth of the cases have error terms in double figures. Tests using out-of-sample forecasting entirely confirm these errors by country and election year. Clearly, the variability in forecast accuracy means the model has greater utility in some countries rather than others for predictive purposes, even if the explanatory value remains useful for all. Grouping by relative size of the MAE, it is clear that the model in general works better for the original six members of the Treaty of Rome. France in particular fits extremely well, with Germany, Belgium and Luxembourg never more than 10% in the out-of-sample predictions. The UK adds to this group if all members at the time of the first 1979 election are covered. With the exception of Poland, Slovenia and to a lesser extent Malta, however, later members all see worse performance.

The added value of the model over and above the random walk model, however, poses a more fundamental challenge to its worth. Despite the immense explanatory capacity which is introduced through the model specification, the improvement upon a truly naïve model based simply upon turnout at t-1 – the random walk model – is

slight. (Table 3 presents the various random walk models for comparison with the models presented across the paper – we are interested at this point in the overall model across all elections, as presented in the first column.)

Table 3 Naïve endogenous random walk* models predicting turnout in European elections 1984-2009

What is the value of introducing so many predictors, if a one-variable model – and one with a five-year lag time to boot! – all but equals its performance. Moreover, this is only one specification of a number which we tried. Whatever variation of political and structural indicators were specified, no model could produce superior MAE or indeed efficient parameter estimates.⁶ Thus, however conceptually appealing our potential predictors may be, and no matter how brave the explanatory literature is in testing its individual accounts of turnout, our forecasting approach needs to adopt a much healthier dose of pragmatism. Put most simply, if we cannot run a single model for all countries, and we cannot include a dozen conceptually rich predictors which fail at a forecasting level to overtake the simplest of forecasting benchmarks, what grouping and which handful of variables give us our best shot at forecasting turnout ?

Deriving parsimonious forecasting models for European abstention

In considering which of this panoply of possible predictors to test across the 27 countries and seven principal electoral periods, a number of small but significant issues, beyond the harsh truth of predictive inefficacy, point to possible problems. Firstly, of the structural controls which we need to apply to the West European cases – specifically, Thursday voting⁷ and compulsory voting – we find no variance at all in the CEE cases. In a parsimonious forecast model, two degrees of freedom are essentially eaten up by redundant predictors. Secondly, if we look at the relationship between national turnout and European turnout, Western countries show a strong correlation between the two, as one would expect theoretically, but CEE countries show no such relationship.⁸

⁶ The authors have an exhaustive list of alternative specifications and associated syntax available on request.

⁷ Which also includes Friday voting.

⁸ Moreover, the sparse number of cases prompts the question whether we should be looking for such a relationship at all.

Figure 2 Association between national and European turnout

As we noted above, including national turnout is meant to pick up national specificities regarding electoral participation which we might expect to affect both first- and second-order elections. Figure 2 should give us pause for thought, however. If such specificities exist, then there would be no reason a priori to expect that such a relationship not exist in the CEE as well as the West. The evidence suggests, however that what in fact national turnout would proxy is the implantation of the second-order elections into the national model and their temporal location in the first-order election cycle (Schmitt, 2005). For the East, the paucity of European elections means this has not happened yet.⁹ One question behind this finding is that of the relevance of the second-order model to Eastern European countries. Using election data in the new member states, Koepke and Ringe (2006) challenge the applicability of a classic second-order model in Central and Eastern Europe, and suggest that the absence of protest vote in local and EP elections be interpreted as 'pure-preference' voting. In which case an interesting implication for the present analysis would be that attitudes and preferences in EU-affairs might be of greater importance to understanding the electoral dynamics of Euro-elections in CEE countries.

Does this mean we should separate out East from West ? Perhaps, but the data are no more forgiving in that respect. If we are to use all European elections as cases – and there would appear to be no good reason not to – then there is a huge skew in the data, with 98 Western cases, between 1979 and 2009, and 20 Eastern cases, between 2004 and 2009. As noted above, with only 20 Eastern cases, the ability to build a useful model is severely limited. For the sake of comparison, Table 3 column 2 provides the random walk predictions of turnout for East and West countries separated. The Eastern case is apparently particularly unstable with larger SE and MAE than the Western counterpart, let alone than the unified model (bearing also in mind that some of this instability in Eastern countries is of course due to the much

⁹ It would be tempting to go further and hypothesise that CEE political systems themselves have yet to stabilise / mature, and thus the notion of a national 'model' is redundant. This lies beyond the scope of the paper, however.

smaller number of cases available to testing a baseline endogenous model in the most recent waves of accession to the EU). This holds when controlling for compulsory voting in the West (see bottom row of Table 3)

Fourthly, and perhaps most fundamentally, this brings us back to a broader and perhaps very obvious point. If we are to build a forecast model which accurately predicts turnout across all 27 members, from Malta to Estonia, is it reasonable to expect a single set of predictors which work across all countries. Indeed, to what extent is it reasonable to expect a set of predictors which work across only a subset of countries? That is, it is notoriously difficult to identify a stable forecast model which works for a single country across time, even to the extent of simply forecasting win / loss for the incumbent. What chance is there to do the same for multiple countries at second-order and predict something as fickle as abstention?

A significant departure from the traditional literature on EP-election turnout, we begin from the most basic of premises that participation in European elections is predicated upon attitudes to Europe, and that such attitudes, at least at national level, are determined by the country's relationship with Europe, then how that relationship is defined may give alternative groupings of nations across EU-27. In keeping with the VP-function roots of political forecasting, an obvious indicator would be the broad economic relationship between Europe and individual nations, namely whether or not a nation is a net beneficiary or net contributor to the EU in budgetary terms. Beyond the clear beneficial impact of EU structural and cohesion funds on the economy of a number of member states, we believe this dichotomisation might also help better understand how public debates on Europe are structured in the political arena, and therefore pick up possibly differential effects of retrospective economic assessments by citizens across recipient and contributor countries.

Such a grouping depends not upon when a country joined or what particular area of the European geography it finds itself in, but what literal economic benefit it derives from the supranational organisation, irrespective of time and place. In the early years, countries which are now contributors were initially beneficiaries, for example The Netherlands or Italy. Moreover, the CEE group does not find itself defined as a self-contained group, but is joined by cohesion policy countries in the West – Portugal,

Ireland, Greece and Spain, who are equally large beneficiaries from the EU. Using this grouping, we find ourselves with two relatively matched groups, size-wise – or at least, much more balanced than the CEE-West grouping.

What would we expect to underpin the respective forecasting models? For the contributor countries, there would be no reason to expect that the existing explanatory model would not work reasonably well. In order to retain strong lead time and test the extent to which structure matters, we dispense with the more political conjunctural variables, retaining only national turnout (to control for national levels of participation) and then add the 'EU membership is bad' attitudinal variable, to assess the extent to which public opinion matters. The results are salutary, as Table 4 shows.

Table 4 Forecasting turnout in net contributor cases

As we would expect, all effects are significant and in the expected direction. Moreover, the standard error and MAE drop to much more acceptable levels. Essentially, the model can predict to within 5% the level of turnout in these countries. Indeed, if out-of-year contests for new members are excluded, the MAE drops to only 4.6%. Comparing these results with the earlier random walk model (Table 3, column 3) the improvement is evident, although not huge. This is undoubtedly because, within the naïve endogenous model, the effects of weekend voting and compulsory elections in particular carry over. For these countries, then, the structural bases to the explanatory models are fit-for-purpose in forecasting terms as well. The national turnout variable shows the importance of national context to turnout, and the membership variable indicates that public opinion does matter – particularly, directionally, the feeling that EU membership is potentially a bad thing. Thus, the degree of Euroscepticism within the country will influence turnout at the Euro-election. However, in simulation – and as apparent from the parameter – the extent of change due to public opinion is small, confirming others' findings in this respect (van der Eijk and Schmitt, 2007).

As gratifying as the proof of the validity of the contributor subgrouping is, it raises the unwelcome possibility that the beneficiary countries which have been removed

constituted so much noise in the original model. This is not due to new, unstable members alone – cohesion policy countries have been members since at least the 1980s. However, for a group constituted essentially by the Treaty of Rome Six plus second-wave members, the contributor countries may form a logic which cannot be found amongst a heterogeneous group of others.

In deciding which variables to test for the beneficiary countries, specific consideration must be given to assessing the theoretical relevance of various public opinion and other possible macro-economic predictors. Conceptually, we would expect countries who saw economic benefit from EU membership to be more likely to turnout. This hypothesis would fit the classic 'reward/punishment of the ruling party' framework in economic voting yet transported at EU-level. The analogy with the core concepts of the literature on economic responsibility is of particular relevance here. First, it helps link the blame or praise hypothesis with turnout made our dependant variable. In national elections, voters are known to hold governments responsible for poor economic performances and to express their dissatisfaction in anti-incumbent votes. At EU-level, such manifestation of economic concerns is hardly conceivable, as there is no way of voting out European Union executive bodies collectively and simultaneously. Arguably, electoral abstention is the only vehicle left to EU citizens to show their disapproval of EU economic management.

Second, the analogy allows for consideration of both the actual economic conditions and how these are actually channelled by national political elites' discourses and perceived in terms of benefits from EU membership by public opinions. On the 'objective' side of the equation, unemployment and GDP growth qualify as possible indicators of economic prosperity, as the EU is more explicitly linked to the well-being of the country. From the existing literature on economic voting in Central and Eastern Europe (see for instance Roberts 2008 or the comprehensive review by Lewis-Beck and Stegmaier, 2008), unemployment is probably best fit for the job and provides comparable measures across all regions. Turning to voters' perceptions, our choices are unfortunately largely constrained by the paucity of longitudinal survey data due to the many changes that have occurred in the wording and selection of Eurobarometer items over time. Of the only two available indicators, we use that of perceived

benefits of EU membership for the country.¹⁰ This is an acknowledgement of the established dominance of sociotropic concerns over the pocketbook. It also helps take into account the psychological process whereby citizens attribute responsibility and translate their views of benefits from EU economic contribution into the actual act of (non) voting. Unlike the more general assessment of EU membership as a 'good/bad thing', which encompasses all cultural, sovereignty and economic aspects, the individual appraisal by citizens of how EU membership has triggered or boosted social and economic prosperity in their own country is closer to the traditional indicators that perform well in economic voting. Empirically, using the 'EU membership bad' variable sees the beneficiary model collapse, whereas using the 'EU_membership benefit' provides a strong fit.¹¹ If ever there were a case for 'more research is needed', this is it.

One final step in the process of model building here consists in looking at the relevance of bringing together Western and Eastern European countries on the sole motive of their common position on general EU operating budgetary balances. Whereas the regional divide is not an issue when looking at contributor countries –all being found in the West– there are more concerns about the deep heterogeneity in the social, economic and political conditions of the whole group of net EU recipients, if only because of the substantial amount of variance in turnout that can be observed across regions. Preliminary analysis showed that there was a case for differentiating between CEE (Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia) and Baltic countries (Estonia, Latvia and Lithuania), the latter being more similar to Western beneficiary member states on average levels of participation in European elections.

The initial model for beneficiary countries therefore selects both unemployment and the aggregate national % score for the subjective assessment of country benefits through EU membership, both measures with a 6-month lag. These are

¹⁰ There are six cases missing from the 1979-81 data, simply because the EU benefit question was only instigated in 1983.

¹¹ Extensive exploratory analysis of underlying individual predictors of attitude towards the EU using logit models saw no discernible difference in the patterns predicting EU membership being of benefit to the country, or of EU membership being a good thing. Unfortunately, this does suggest a certain model instability, at least with regard to these variables, where tiny changes result in significant shifts in model outcome.

complemented with an Eastern dummy leaving out Baltic states. Lastly, a dummy is created to take into account the presence of compulsory voting system in some cases of Western member states (Cyprus, Greece) (see Table 5).

Table 5 Forecasting turnout in net beneficiary cases

The outcome for the initial model shows confirms the anticipated high degree of heterogeneity in forecasts across all beneficiary member states. MAE and SE are both high, and the two key predictors – unemployment and attitude to EU membership – both fail to reach significance. The model also fails to beat simple random walk predictions by a substantial margin. Looking more closely at the distribution of errors however reveals significant differences in performances across regions. Not surprisingly the model fit is much better in CEE countries and, to a lesser extent, Western member states alone, all three Baltic states contributing a significant deal to fluctuations in model fit.

In both cases, what is also revealed is a counter-intuitive yet consistent pattern of negative association between sociotropic evaluations of benefits through EU membership and national levels of turnout in European elections, which call for further investigation. To this end, measures of influence (DFFITS) are used to assess the impact of each i th individual data point –which consists of a combination of a specific election year in a given country. This allows us to flag important changes to the overall fit of the model induced by deletion of a number of influential cases with large distance between predicted values estimated from the full sample and those computed with the individual case omitted. On considering the individual predicted scores by case, it is clear that eight cases represent significant outliers that exercise leverage over the model.¹²

Table 6 Forecasting turnout in reduced net beneficiary cases

Removing these eight extreme cases, the resultant model is predictively strong – indeed, its average MAE outperforms that of the contributor country model, and the

¹² These are : Estonia 2004 & 2009, Ireland 1989, Lithuania 2009 and Portugal 1994-2009.

contrast with the random walk model is stark. At only two key explanatory variables, after controlling for compulsory vote and Eastern (without Baltic¹³), it is more parsimonious and retains a 6-month lead-time. Here the largest prediction errors are found to be under-estimates in turnout in cases where another election was taking place concurrent with the European contest (Ireland in 2004 and 2009, Portugal in 1987, and Spain in 1987 and again in 1999).

Turning back to the explanatory value in forecasting endeavours, the model portrays the relationship between beneficiaries and Europe in quite simple terms, unconditioned by national political specificities. In particular, lagged levels of first-order election turnout would not significantly alter the model whereas they introduced substantial reduction in errors in the contributor group. This tends to confirm the higher degree of autonomy of the European politics sphere in countries whose attachment to the EU derives primarily from strong economic dependency. This predominance of public perceptions of benefits received through EU membership over the objective state of the national economy measured by unemployment levels is evidenced empirically in the continuing robustness of the model if the economic predictor is removed (with only a small increase in SE and MAE).

As suggested above, what is very noticeable is the negative direction of the resource indicators. At higher levels of unemployment, turnout falls; and the more the populations of these countries see the benefits of belonging to the EU, turnout also falls. The first of these findings confirms Fauvelle-Aymar and Stegmaier's own conclusions (2008: 670), but in our model this applies more broadly than simply new Eastern European member states in 2004. However, the second directly contradicts the findings of Mattila (2003: 464) and of Studlar, Flickinger and Bennett (2003), for instance, that net recipients turn out in greater numbers. It also reverses the van der Eijk and Schmitt finding of relatively small effects (2007) which did hold in the contributor nations. It is probably extrapolating too far to describe such an attitude as 'EU ungratefulness', but equally, it is difficult to rationalise the effect in any other way.

¹³ Even in the absence of three of the six Baltic cases, the remainder still resemble their Western European counterparts much more closely than the CEE nations. We could find no obvious socio-economic reason for this in the CEE voting literature.

The 'necessary' elimination of a number of influential outliers clearly represents a major pitfall in this study, and equally a firm invitation to prudence in interpreting both the parameters and fit of the beneficiary equation. Our reduced model is of course of no assistance in determining which other models might have been selected using similar case-by-case influence diagnostics under different hypotheses. The need for parsimony makes it equally difficult to add new predictors that would hypothetically help account for the disturbance caused by outliers.

Looking at the profile of the eight cases at stake here, as compared with the other beneficiaries, one notable contrast does emerge – looking at the EU balance per capita in euros, the amount received (225 euros) is on average double that of the other beneficiaries (112 euros) which, when we look at the parameter estimate for the EU benefit attitudinal scale in the reduced model may be significant. On the other hand, these cases have slightly lower levels of turnout, which would lead to considering these as potentially even more extreme occurrences of 'spoiled children', ungrateful vis-à-vis EU largesse. Lastly, these outliers show greater variability in turnout across successive elections whereas levels of support for EU membership remain fairly stable country-wise. That other exogenous factors might have had an impact should therefore be considered. The most obvious example of this is found in Estonia in 2009 where turnout reached 43.9% as opposed to only 26.8% in 2004, largely because of the implementation of advanced internet voting in 2005.

Conclusion

We would not claim to have identified anything approaching (a) 'final' forecast model(s) of abstention. For contributor countries, and indeed more specifically, countries from the initial waves of membership, the explanatory models provide a very reasonable baseline upon which to forecast turnout. It is worth adding that explanatory models of vote, as opposed to whether people vote, also base themselves substantially upon the same demographic and attitudinal predictors, particularly when contrasting between pro- and anti-European / Eurosceptic parties (Evans, 2000). Indeed, predicting turnout at the Euro-ballot, to the extent that it remains something separate from turning out at any ballot, is undoubtedly dependent upon the quality and competitiveness of the Eurosceptic parties in play. To that

extent, a measure of this would undoubtedly improve the model fit and forecasting precision.

Unfortunately, the same can potentially be said of any number of variables, given sufficient degrees of freedom and a rich data-source – an unfortunately non-existent anti-monde. Given the relative paucity of cases (although we cannot complain too much, given the even scarcer resources that first-order electoral forecasters often face) we need to pick those variables which give the biggest bang for their buck, and not just in variance explained, but also in lead time. Part of this paper's original mission was to identify the extent to which European turnout is outside the purview of those politicians and other activists who vaunt the merits of increased participation, and a need to engender this at the Euro-ballot. In some sense, the answer is simplistic, in the best constitutional engineering sense: vote on weekends; make it obligatory; and hold it simultaneously with another election – any other election. This of course misses the point entirely, argue the politicians and activists. But it is entirely the point – the other forecasting variables are those which politicians and activists would dearly like to influence for reasons well beyond European turnout.

Unemployment; support for EU institutions; and the countless other possible predictors which we could not include (GDP; political interest; political trust; and so on) are all indicators which precede European turnout, despite many politicians' apparent belief in the reversibility of that causality. The extreme case of Slovakia is instructive. In the first European election in that country, turnout hit a record low of under 17%, as evidenced indirectly by Slovakian opinion-leaders' comments that they would mobilise more effectively in 2009 to double this score. The result – a second lowest turnout of all time, at just under 20%.

We risk straying too far from the forecasting remit. But the beneficiary model does nevertheless manifest the demand side of this unholy equation. Whilst the direct impact of economic measures such as unemployment apparently illustrate the truth that voters will be more willing to engage with side events such as the European elections once core business is taken care of¹⁴, so the benefit of that side event is itself no guarantee of engagement. Voters in European beneficiaries are savvy – they

¹⁴ That is, until an alternative model specification likely lays waste to this proof in the near future.

know that their country benefits from the EU, and that the European Parliament determines this benefit not one jot, in any real sense.

So much for the strength of the model. But even the outliers reinforce the secondary nature of the elections. Where shocks are apparent in qualitative terms to account for the large error in our models' forecasts, so these are issues which divert attention. The credit crunch in 2009, for instance, took many badly hit countries' voters minds very much off who their MEP should be, and even perhaps that there were even MEPs to select. Yet such cases are relatively few in number, and we can never hope to anticipate their effect in modelling terms. We can simply revise the model's estimate in this light. However, that the number is few indicates the general predictability of turnout, even through two relatively unsophisticated cross-national models. The unified model was perhaps a vain hope, given the stage and status of European membership across the 27 nations. The ex post ad hocery of eliminating some troublingly grateful beneficiary countries is hardly forecasting's finest hour. But, the beneficiary outliers notwithstanding, the apparent heterogeneity which encompasses relatively accurate forecasts is more limited than we might have otherwise dared have hoped.

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Table 1 Explanatory model of European turnout

	B	Robust s.e.
Intercept	12.22	7.36
National turnout	0.54 **	0.07
Compulsory voting	17.83 **	1.68
Any other election	12.75 **	1.41
Log days since last election	1.51 *	0.70
First European election?	6.24 **	1.78
Post-Amsterdam Treaty	-5.17 **	1.58
Thursday voting	-8.20 **	1.71
EU membership bad	-0.43 **	0.08
Eastern	-17.87 **	5.21
Effective number of parties	0.97 *	0.32
Amsterdam BY first European election	-9.88 **	3.09
Eastern BY EU membership bad	0.79 *	0.30
Adj. R ²	0.91	
SE	6.24	
MAE	5.29	
Durbin Watson	1.44	
N	118	

* p < .05, ** p < .001

Table 2 MAE summary by year and country

MAE ... <= 5%	... <= 10%	... > 10%
AT99,04,09		AT96
BE79,99,04,09	BE84,89,94	
CZ04	CY04,09	
DK79,89,04,09	CZ09	
EE04	DK94	DK84,99
FI04,09		EE09
FR79,84,89,94,99,04,09	FI96,99	
DE79,84,99	DE89,94,04	
GR81,94,99	GR84,89,09	GR04
HU09	HU0	
IE79,84,94,99	IE09	IE89,04
IT84,94,99	IT79,04,09	IT89
LV09	LV04	
	LT04,09	
LU84,94,99,04,09	LU79,89	
MT09	MT04	
NL79,84,04	NL89,94	NL99
PL04,09		
PT87,89,04,09	PT99	PT94
	RO09	RO07
	SK09	SK04
SI04,09		
ES89,99	ES87,94	
SE99,04,09		SE95
UK84,89,94,04,09	UK79,99	

Table 3 Naïve endogenous random walk* models predicting turnout in European elections 1984-2009

All countries		Region			EU budgetary balance	
	All	Western	Eastern**	Contributor	Beneficiary	
Constant	4.43 (2.62)	3.14 (2.95)	21.49 (12.42)	1.02 (2.98)	10.72 (4.70)	
Turnout	0.88 (0.04)	0.90 (0.04)	0.34 (0.38)	0.94 (0.04)	0.75 (0.08)	
Adj. R2	0.81	0.81	0.02	0.88	0.67	
SE	8.45	8.08	10.95	7.24	9.59	
MAE	6.40	6.21	11.05	5.41	7.79	
N	(91)	(81)	(10)	(52)	(39)	

Non compulsory voting***		Region			EU budgetary balance	
	All	Western	Eastern**	Contributor	Beneficiary	
Constant	14.64 (3.50)	16.18 (4.16)	21.49 (12.42)	12.90 (4.68)	15.96 (5.34)	
Turnout	0.65 (0.07)	0.62 (0.07)	0.34 (0.38)	0.68 (0.09)	0.62 (0.10)	
Adj. R2	0.54	0.50	0.02	0.58	0.51	
SE	8.36	7.94	10.95	7.27	9.61	
MAE	6.54	6.27	11.05	5.64	7.98	
N	(71)	(61)	(10)	(37)	(34)	

*Random walk (RW) model: Vote = electoral turnout at previous election.

**Eastern: BG-Bulgaria, CZ-Czech Republic, EE-Estonia, HU-Hungary, LV-Latvia, LT-Lithuania, PL-Poland, RO-Romania, SK-Slovakia, SI-Slovenia.

***Excluding: Belgium, Cyprus, Luxemburg, Italy (up to 1994) and Greece (up to 2000)

Table 4 Forecasting turnout in net contributor cases

	B	Robust s.e.
Intercept	22.25 *	7.64
Compulsory voting	16.94 **	2.79
Any other election	14.76 **	2.18
Post-Amsterdam Treaty	-6.88 **	1.65
Thursday voting	-13.78 **	1.60
EU membership bad	-0.37 **	0.11
National turnout	0.47 **	0.09
Adj. R ²	0.93	
SE	5.76	
MAE	4.95	
Durbin Watson	1.41	
N	59	

* p < .05, ** p < .001

Table 5 Forecasting turnout in net beneficiary countries

	B	Robust s.e.
Intercept	57.83 **	8.85
Compulsory voting	28.48 **	2.55
Unemployment (6-month lag)	0.13	0.37
Eastern without Baltic	-22.14 **	2.64
EU benefits country	-0.15	0.10
Adj. R ²	0.72	
SE	9.57	
MAE	7.19	
Durbin Watson	1.85	
N	53	

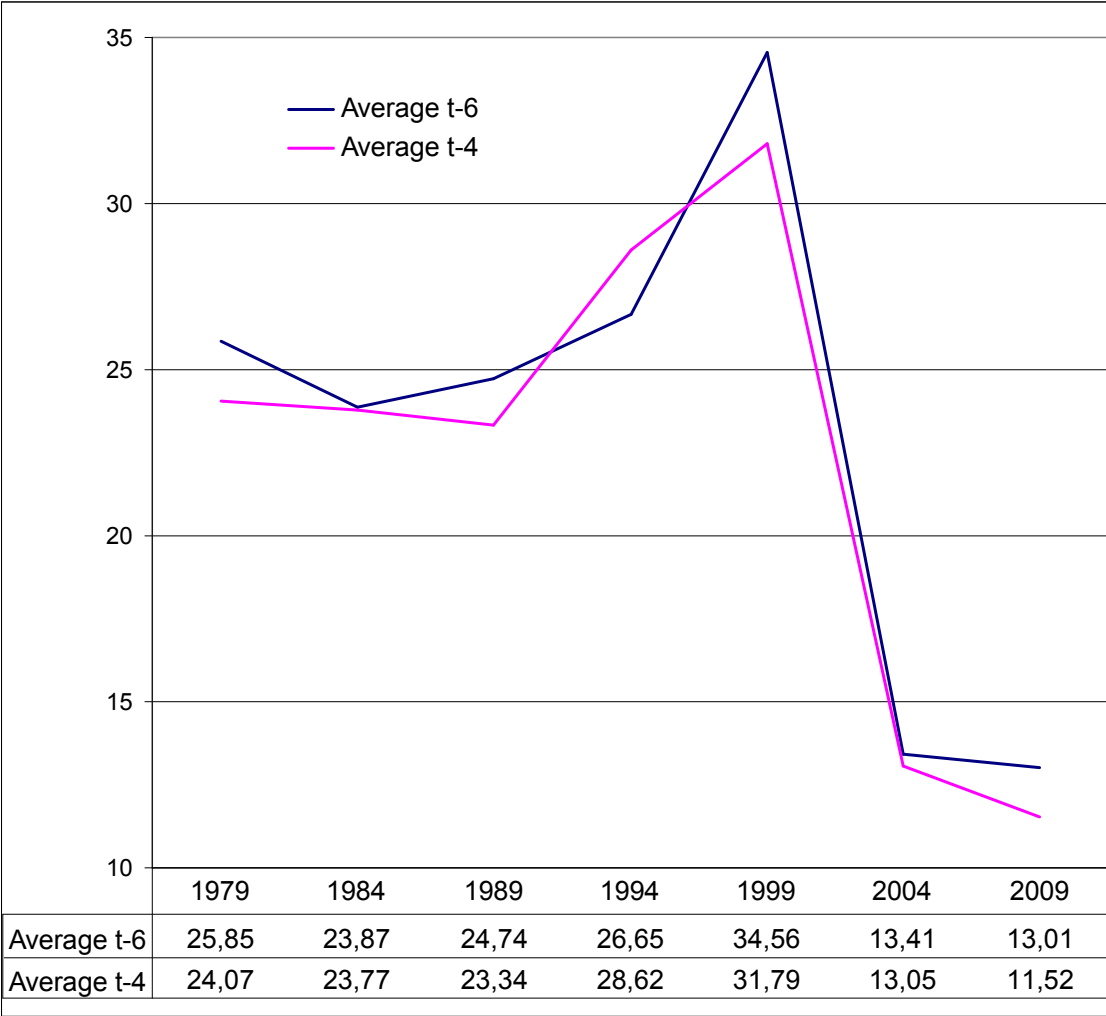
* p < .05, ** p < .001

Table 6 Forecasting turnout in reduced net beneficiary countries

	B	Robust s.e.
Intercept	74.33 **	5.09
Compulsory voting	23.42 **	1.98
Unemployment (6-month lag)	-0.58 *	0.20
Eastern without Baltic	-26.59 **	1.75
EU benefits country	-0.25 **	0.06
Adj. R ²	0.89	
SE	6.05	
MAE	4.71	
Durbin Watson	1.93	
N	46	

* p < .05, ** p < .001

Figure 1 Polling error in forecasting turnout (Eurobarometer polls at t-6 and t-4)



Question wording: 1979-1994: will ‘certainly’ + ‘probably’ vote; 1999: ‘yes’ / ‘no’; 2004-2009: Resp. 9+10 on 1-10 scale
 1979: n=9; 1984: n=10; 1989: n=12; 1994: n=12; 1999: n=15; 2004: n=25; 2009: n=27. No data were available for off-year elections.

Source: Eurobarometer 10 October - November 1978 (ZA0994); Eurobarometer 11 April 1979 (ZA1036); Eurobarometer 20 October 1983 (ZA1319); Eurobarometer 21 April 1984 (ZA1320); Eurobarometer 30 October-November 1988 (ZA1715); Eurobarometer 31 Pre-Election Survey March-April 1989; Eurobarometer 40 October-November 1993 (ZA2459); Eurobarometer 41.0 March - May 1994 (ZA2490); Eurobarometer 50.0 October - November 1998 (ZA3085); Eurobarometer 51.0 March-April 1999 (ZA3171); Eurobarometer 60.1 October - November 2003 (ZA3938); Candidate Countries Eurobarometer 2003.4 October 2003 (ZA3986); Eurobarometer 61 February - March 2004 (ZA4056); Candidate Countries Eurobarometer 2004.1 February - March 2004 (ZA4246); Eurobarometer 70.1 October - November 2008 (ZA4819); Eurobarometer 71.1 January-February 2009 (ZA4971).

Figure 1 cont'd

EUROPEAN_YEAR		DIFF_t_6	DIFF_t_4
1979	Mean	25.8533	24.0729
	N	9	7
	Std. Deviation	11.31208	10.28158
1984	Mean	23.8650	23.7650
	N	10	10
	Std. Deviation	11.46244	11.46310
1989	Mean	24.7358	23.3442
	N	12	12
	Std. Deviation	12.15711	13.31241
1994	Mean	26.6500	28.6167
	N	12	12
	Std. Deviation	12.09226	12.92034
1999	Mean	34.5607	31.7873
	N	15	15
	Std. Deviation	16.85027	14.91883
2004	Mean	13.4056	13.0536
	N	25	25
	Std. Deviation	12.46663	10.10466
2009	Mean	13.0141	11.5230
	N	27	27
	Std. Deviation	10.40582	8.57705
Total	Mean	20.8445	19.8515
	N	110	108
	Std. Deviation	14.43902	13.53193

Figure 2 Association between national and European turnout

